

CLAIM OR CLAIMS

WHAT IS CLAIMED IS:

- Sub
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5
1. A method of performing semi-automatic tracking of colored objects within a video image sequence comprising the steps of:
- separating objects within an initial frame of the video image sequence on the basis of color;
- identifying from the separated objects an object of interest having a centroid; and
- 10 tracking the object of interest through successive frames of the video image sequence using a Kalman predictive algorithm applied to the centroid.
2. The method as recited in claim 1 wherein the tracking step comprises
- 15 the steps of:
- from the initial frame determining a position and velocity for the centroid;
- for each successive frame predicting a position of the centroid;
- from the predicted position extracting a connected group of blocks
- 20 that belong to the object of interest;
- measuring the position of the centroid in the successive frame from the connected group of blocks; and
- smoothing the measured position and velocity of the centroid.

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3. The method as recited in claim 1 further comprising the steps of:

detecting whether the centroid in the successive frame is within the
object of interest and field of view; and

applying an error recovery scheme to re-identify the object of

5 interest in the successive frame.

Asd A. }

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